

## Submersible Electric Pumps for clean and dirty water

DOC pumps are versatile, corrosion-resistant and compact. Three basic versions are available with 0,25 to 0,55 kW power. A DOC 7VX version with Vortex impeller is available.

### DOC Series



#### APPLICATIONS

- Emptying of residential sump pits, rainwater tanks or laundry drainage.
- Garden and lawn irrigation, with suction from rainwater tanks.
- Emergency draining of flooded basements and garages.
- Transfer of water from tanks, cisterns and swimming pools.

#### SPECIFICATIONS

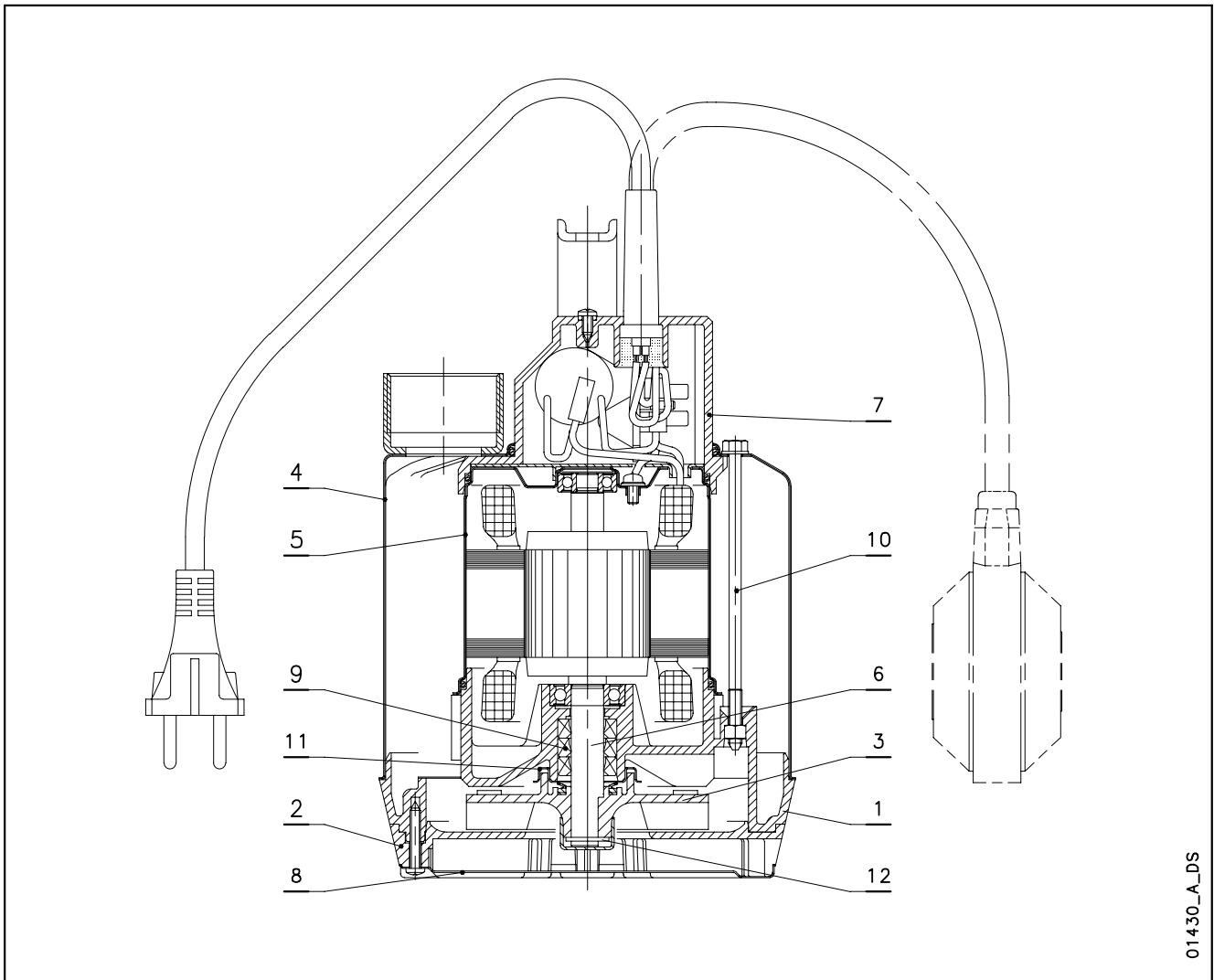
- **Maximum liquid temperature:** 40°C with partially submerged pump.
- **Dry motor.**
- Maximum immersion depth: 5 m.
- **Class B insulation.**
- The **DOC 3** pump has a delivery of **135 l/min**, head up to **7 m**, and passes **suspended solids up to 10 mm** in diameter. Only available in single-phase version.
- The **DOC 7** pump has a delivery of **225 l/min**, head up to **11 m**, and passes **suspended solids up to 10 mm** in diameter.

- The **DOC 7VX** pump has a delivery of **175 l/min**, head up to **7 m**, and can handle liquids with **suspended solids up to 20 mm** in diameter.
- A **“shallow-suction device”**, that can be mounted on both the DOC3 and DOC7 models, is available on request. It ensures complete drainage of flooded floors (to 3 mm from floor).
- **Versions:**
  - Single-phase: 220-240 V, 50 Hz  
2 poles.
  - Three-phase: 220-240 V, 50 Hz  
380-415 V, 50 Hz  
2 poles.
- 60 Hz and without floats (SG) models are available on request or tube float switch.
- **The single-phase versions** features:
  - Pre-assembled float** for automatic pump operation (version without float available on request).
  - Built-in capacitor.**
  - Thermal overload protection** to stop pump supply in case of overheating.

#### LAB-LIP SEAL SYSTEM

- The electric motor is protected by **three lip seals**. An **impeller counterblade** system keeps solid particles away from the seal unit to prevent damage to the lip seals and ensure their long-lasting efficiency. A double **Labyrinth** and a **V-ring** on the shaft have also been provided.

**DOC SERIES  
LIST OF MODELS AND TABLE OF MATERIALS**

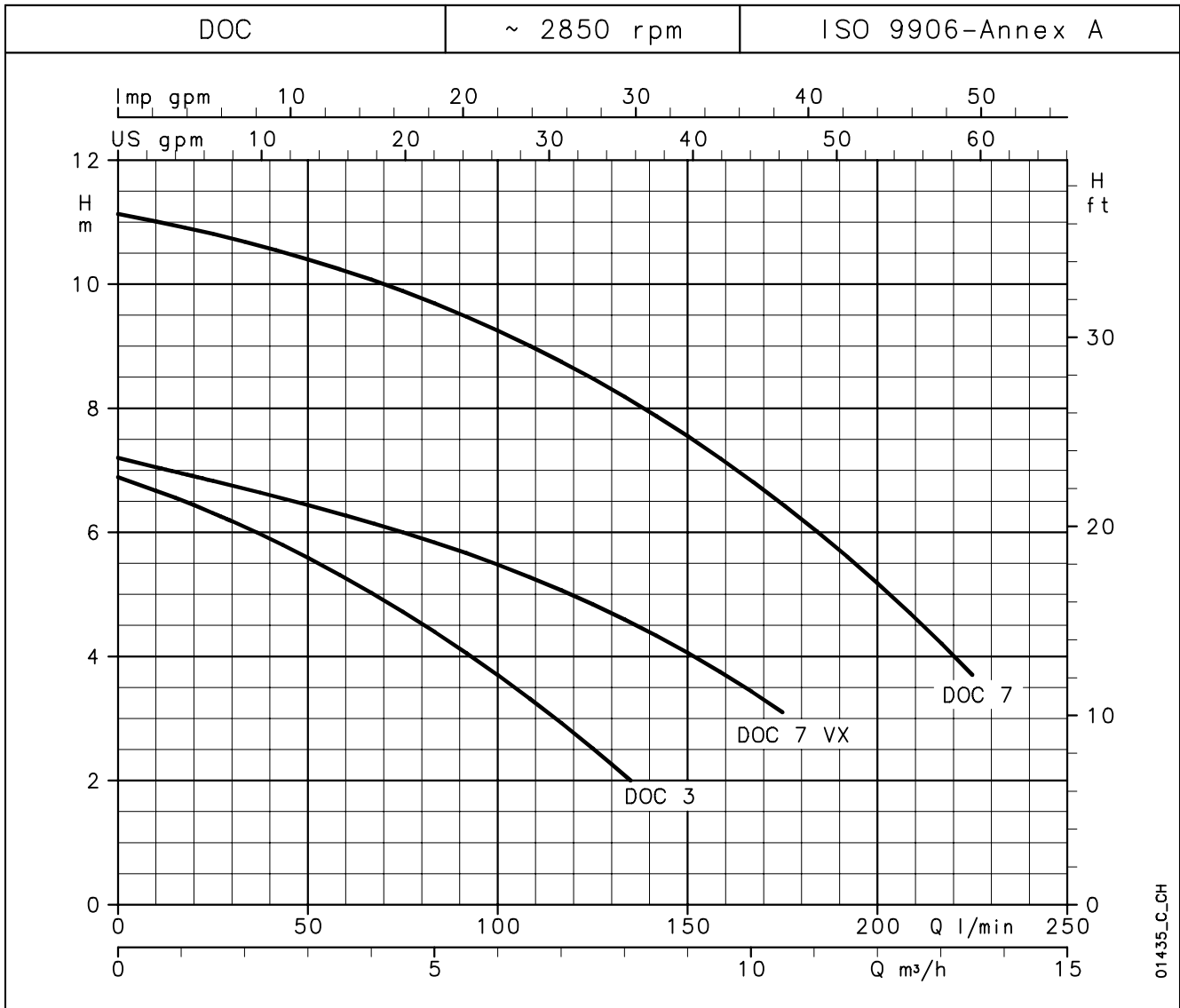


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REF. N.	NAME	MATERIAL	REFERENCE STANDARDS	
			EUROPE	USA
1	Pump body	NORYL GFN 2V		
2	Suction strainer	NORYL GFN 2V		
3	Impeller	Technopolymer		
4	External case	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
5	Internal motor casing	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
6	Shaft	Stainless steel	EN 10088-1-X12CrS13 (1.4005)	AISI 416
7	Head	NORYL GFN 2V		
8	Lower cover	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
9	Elastomers	NBR		
10	Tie-rod and screws	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
11	Double wear ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304
12	Impeller fixing ring	Stainless steel	EN 10088-1-X5CrNi18-10 (1.4301)	AISI 304

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**DOC SERIES  
OPERATING CHARACTERISTICS AT 50 Hz**



**HYDRAULIC PERFORMANCE TABLE**

PUMP TYPE	RATED POWER		Q = DELIVERY									
			l/min	0	25	50	75	100	125	135	175	225
	kW	HP	m³/h	0	1,5	3	4,5	6	7,5	8,1	10,5	13,5
H = TOTAL HEAD METRES COLUMN OF WATER												
DOC3	0,25	0,33	6,9	6,3	5,6	4,7	3,7	2,5	2,0			
DOC7(T)	0,55	0,75	11,1	10,8	10,4	9,9	9,3	8,5	8,1	6,5	3,7	
DOC7VX(T)	0,55	0,75	7,2	6,8	6,4	6,0	5,5	4,8	4,5	3,1		

These performances are valid for liquids with density  $\rho = 1,0 \text{ kg/dm}^3$  and kinematic viscosity  $\nu = 1 \text{ mm}^2/\text{s}$ .

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**ELECTRICAL DATA TABLE**

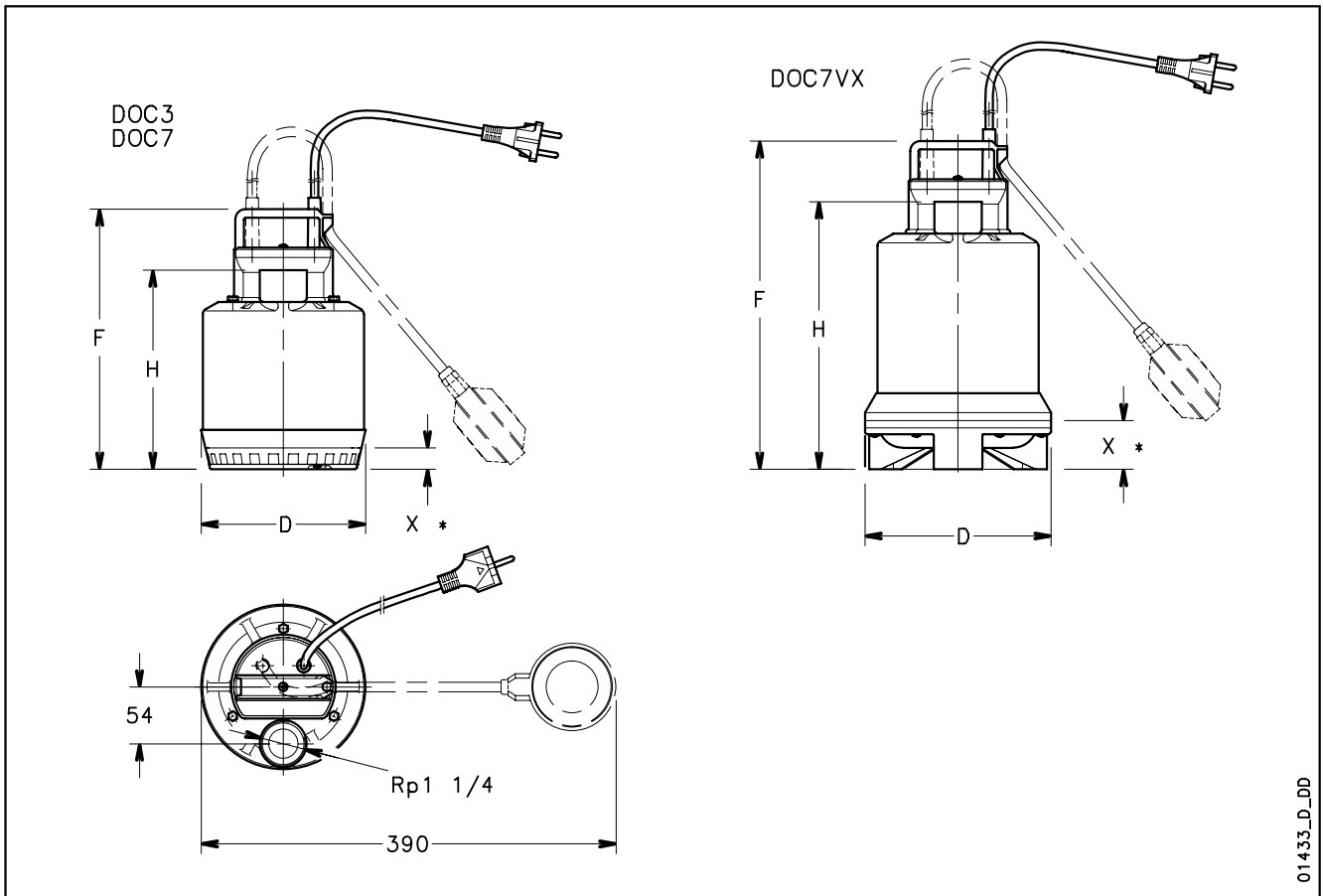
PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	CAPACITOR
SINGLE-PHASE	kW	220-240 V A	$\mu\text{F} / 450 \text{ V}$
DOC 3	0,31	1,43	6,3
DOC 7	0,78	3,47	16
DOC 7VX	0,66	2,96	16

PUMP TYPE	ABSORBED POWER*	ABSORBED CURRENT*	ABSORBED CURRENT*
THREE-PHASE	kW	220-240 V A	380-415 V A
-	-	-	-
DOC 7T	0,79	2,82	1,63
DOC 7VXT	0,66	2,68	1,55

\*Maximum values within operating range

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**DOC SERIES  
DIMENSIONS AND WEIGHTS**

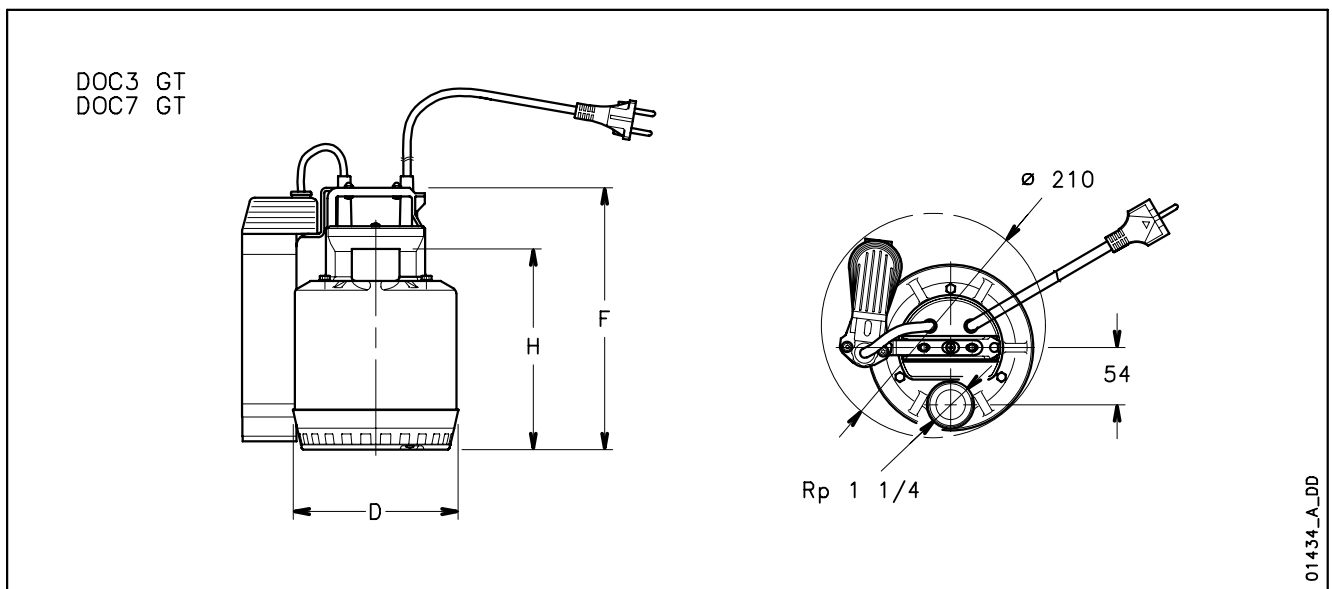


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PUMP TYPE		DIMENSIONS (mm)				WEIGHT
		F	H	D	X*	kg
DOC3	DOC3 GT	245	188	155	20	4
DOC7(T)	DOC7(T) GT	285	228	155	20	6
DOC7VX(T)	-	310	252	175	45	6

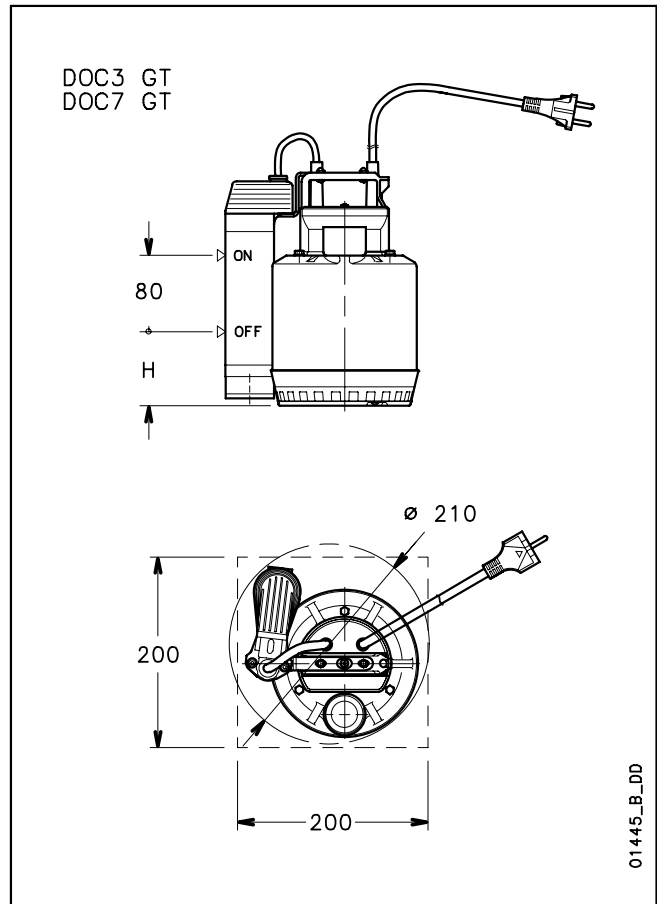
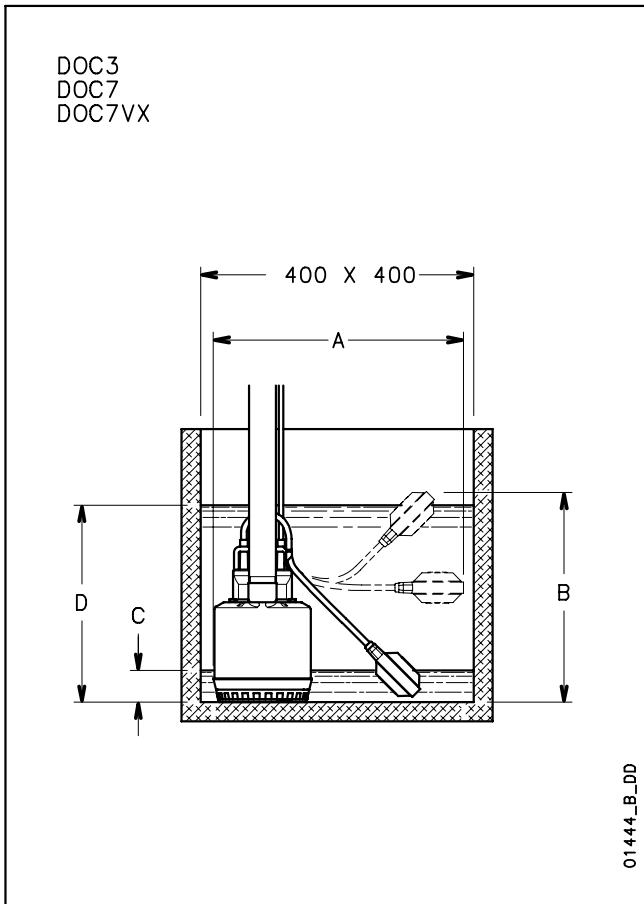
\* Minimum liquid level.

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## DOC SERIES INSTALLATION EXAMPLES



PUMP TYPE		DIMENSIONS (mm)		MINIMUM WATER LEVEL	MAXIMUM WATER LEVEL	MINIMUM WATER LEVEL
		A	B	C	D	H
DOC3	DOC3 GT	390	330	50	310	90
DOC7	DOC7 GT	390	370	90	350	90
DOC7VX	-	390	395	115	375	-

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## ACCESSORIES

